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| 09/669,215 | 09/25/2000 | Larry Cecil Brown | RAC 89,921 | 5454 |

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| EXAMINER | |
|---|---|
| MASKULINSKI, MICHAEL C | |
| **ART UNIT** | **PAPER NUMBER** |
| 2184 | 4 |

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/669,215 | BROWN, LARRY CECIL | |
| | Examiner | Art Unit | |
| | Michael C Maskulinski | 2184 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *25 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

**Non-Final Office Action**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 14 and 20 recite the limitation "said cable modem system." There is insufficient antecedent basis for this limitation in the claim. The Examiner has interpreted this claim to mean, "said modem system."

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-8, 10, 13, 14, 16, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al., U.S. Patent 5,202,914.

Referring to claim 1:

a. In column 4, lines 55-60, Kim et al. disclose that a telephone set may be connected to the system to provide connection with the remote data processing center (a bi-directional communication system).

b. In Figure 2B, Kim et al. teach generating ordered status indications reflecting the status of completion of sequentially performed groups of operations wherein individual status indications are associated with corresponding groups of operations.

c. In column 5, lines 7-11, Kim et al. disclose that a linear array of light emitting diodes (LED's) is provided to show the state of the system. An LED is lit when the system is turned on and all self-tests are satisfactory (capturing said generated status indications and retaining said captured status indications following initiation of repetition of said groups of operations).

d. In Figure 2B, Kim et al. teach providing said retained captured status indications as identification of an attained operational status of said system for system operation diagnosis.

Referring to claim 4, in column 5, lines 7-23, Kim et al. disclose that the LED is lit when the system is turned on and all self tests are satisfactory. Otherwise the LED will blink if an error is detected (said status indication identify the status of groups of operations being performed prior to interruption by a condition including at least a fault condition).

Referring to claim 5, in column 5, lines 7-10, Kim et al. disclose that a linear array of LED's is provided to show the state of the system. The LED is lit when the system is turned on (said captured status indications are provided in response to a User command). Further, in Figure 2B, Kim et al. teach captured status indications that

identify the highest operational state reached in initialization of said system prior to an interruption.

Referring to claim 6, in column 5, lines 7-10, Kim et al. disclose that a linear array of LED's is provided to show the state of the system. The LED is lit when the system is turned on (said User command comprises selection of a power switch setting).

Referring to claims 7 and 16, in column 5, lines 7-10, Kim et al. disclose that a linear array of LED's is provided to show the state of the system (said captured status indications are usable in combination for fault finding and problem diagnosis by a technician).

Referring to claim 8, in Figure 2B, Kim et al. teach a providing step that comprises at least displaying said retained captured status indications to a User of said system.

Referring to claim 10, in Figure 2B, Kim et al. teach displaying the retained captured status indications as hierarchically ordered indicators comprising at least LED's. Further, in column 5, lines 43-46, Kim et al. disclose an LCD that also displays indicator bars or dashes in association with labels printed on the body of the system to display various system states and error conditions (a visible progressive illuminated bar indicator and non-LED illuminations).

Referring to claims 13 and 19:

a. In column 4, lines 55-60, Kim et al. disclose that a telephone set may be connected to the system to provide connection with the remote data processing center (a modem system).

b. In Figure 2B, Kim et al. teach generating hierarchically ordered status indications reflecting the status of completion of sequentially performed groups of operations wherein individual status indications are associated with corresponding groups of operations and identify the status of groups of operations being performed prior to interruption by a condition including a fault condition.

c. In column 5, lines 7-11, Kim et al. disclose that a linear array of light emitting diodes (LED's) is provided to show the state of the system. An LED is lit when the system is turned on and all self-tests are satisfactory (capturing said generated status indications and retaining said captured status indications following initiation of repetition of said groups of operations).

d. In Figure 2B, Kim et al. teach providing said retained captured status indications as identification of an attained operational status of said system for system operation diagnosis.

Referring to claims 14 and 20, in Figure 2B, Kim et al. disclose a power up modem loopback test fail (said sequentially performed groups of operations comprise at least an initialization procedure of said modem system).

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., U.S. Patent 5,202,914, and further in view of the ACM6000EB Cable Modem User's Manual.

Referring to claim 2:

a. In column 6, lines 41-50, Kim et al. disclose that the microcontroller communicates with remote data processing center over the telephone network through a modem chip. However, Kim et al. don't explicitly disclose the use of a cable modem. The Cable Modem User's Manual teaches the use of a cable modem. It would have been obvious to one of ordinary skill at the time of the invention to include the cable modem of the Cable Modem User's Manual into the system of Kim et al. A person of ordinary skill in the art would have been motivated to make the modification because a cable modem is an improvement over a dial up modem. This is evident on page 4 of the Cable Modem User's Manual, which boasts remarkable transfer rates and features such as low power consumption.

b. On page 7, the Cable Modem User's Manual discloses LED indicators that indicate the modem is powered, the modem is registered on the cable operator's network, normal operation, failed operation, and the status of the connection between the LAN and PC (said generating step generates hierarchically ordered status indications).

c. On page 7, the Cable Modem User's Manual discloses and LED indicator that indicates an error (an abnormal condition monitoring procedure of said cable modem system).

7. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., U.S. Patent 5,202,914, and further in view of Unger et al., U.S. Patent 6,230,326 B1.

Referring to claim 3 and 17:

a. In column 6, lines 41-50, Kim et al. disclose that the microcontroller communicates with remote data processing center over the telephone network through a modem chip. However, Kim et al. don't explicitly disclose the use of a cable modem or performing the operations of tuning, ranging, configuring, and registering. In the Abstract, Unger et al. disclose a method and apparatus for initialization and operation of cable modems. It would have been obvious to one of ordinary skill at the time of the invention to include the cable modem of the Unger et al. into the system of Kim et al. A person of ordinary skill in the art would have been motivated to make the modification because a cable modem is an improvement over a dial up modem because of its increase in data transfer rate.

b. In column 6, lines 11-20, Unger et al. disclose that initialization of the modem includes ranging, provisioning, and registration (the operations include ranging and registering).

8. Claims 9, 11, 15, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., U.S. Patent 5,202,914, and further in view of McKaughan et al., U.S. Patent 6,014,744.

Referring to claims 9, 11, 15, 18, and 21, in column 6, lines 4-32, Kim et al. disclose memory in the microcontroller, which stores the application program and system parameters. However, Kim et al. don't explicitly disclose retaining said captured status indications during re-cycling of said sequentially performed groups of operations in a removable storage medium. In column 1, lines 55-67 continued in column 2, lines 1-7, McKaughan et al. disclose storing a BOOTING flag that indicates whether the last iteration of the booting process was completed successfully. It would have been obvious to one of ordinary skill at the time of the invention to include the BOOTING flag of McKaughan et al. into the system of Kim et al. A person of ordinary skill in the art would have been motivated to make the modification because setting the BOOTING flag indicates where the error occurred so that the failure can be remediated (see McKaughan et al.: column 4, lines 26-31).

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., 5,202,914, and further in view of Schieve et al., U.S. Patent 5,455,933. In column 4, lines 55-60, Kim et al. disclose the use of a telephone set to communicate with a remote data processing center. In column 3, lines 42-52, Schieve et al. disclose sending an indication of a selection of diagnostic routines to be performed from a remote location. It would have been obvious to one of ordinary skill at the time of the invention to include the remote diagnostic system of Schieve et al. into the system of Kim et al. A person of

ordinary skill in the art would have been motivated to make the modification because there is a need in the art for a system and method for allowing remote diagnosis of PCs, even those suffering non-bootable faults, by a remote technician that are cost and hardware efficient (see Schieve et al.: column 3, lines 16-19).

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,710,929 Kelly et al.

U.S. Patent 6,366,297 B1 Feagans

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Mon-Thu 7:30-5 and Fri. 7:30-4 (second Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MM
July 21, 2003

SCOTT BADERMAN
PRIMARY EXAMINER